

# Component Documentation

The provides a comprehensive navigation solution for displaying hierarchical navigation paths. It supports icons, collapsible behavior, multiple sizes, custom separators, and responsive design to enhance user navigation experience.

## How to use

Import the component and provide an array of breadcrumb items with their navigation properties.

## Basic Usage

Simple breadcrumb navigation with text labels.

```
<aava-breadcrumbs [breadcrumbs]="simpleBreadcrumbs"></aava-breadcrumbs>

---

simpleBreadcrumbs: BreadcrumbItem[] = [
  { label: 'Home', url: '/home', active: false },
  { label: 'Category', url: '/category', active: false },
  { label: 'Product', url: '/product', active: true },
];
```

## With Icons

Breadcrumbs with icons for enhanced visual representation.

```
<aava-breadcrumbs [breadcrumbs]="mixedBreadcrumbs"></aava-breadcrumbs>

---

mixedBreadcrumbs: BreadcrumbItem[] = [
  { icon: 'home', label: 'Home', url: '/home', active: false },
  { icon: 'folder', label: 'Category', url: '/category', active: false },
  { icon: 'file', label: 'Product', url: '/product', active: true },
];
```

## Size Variants

Four different size options (xs, sm, md, lg) for various design contexts.

```
<aava-breadcrumbs [breadcrumbs]="sampleBreadcrumbs" size="xs">
</aava-breadcrumbs>
<aava-breadcrumbs [breadcrumbs]="sampleBreadcrumbs" size="sm">
</aava-breadcrumbs>
<aava-breadcrumbs [breadcrumbs]="sampleBreadcrumbs" size="md">
</aava-breadcrumbs>
<aava-breadcrumbs [breadcrumbs]="sampleBreadcrumbs" size="lg">
</aava-breadcrumbs>

---

sampleBreadcrumbs: BreadcrumbItem[] = [
  { icon: 'home', label: 'Home', url: '/home', active: false },
  { icon: 'folder', label: 'Products', url: '/products', active: false },
  {
    icon: 'tag',
    label: 'Category',
    url: '/products/category',
    active: false,
  },
  {
    icon: 'package',
    label: 'Item Details',
    url: '/products/category/item',
    active: true,
  },
];

```

## Collapsible Behavior

Smart collapsing for long navigation paths with ellipsis expansion.

```
<aava-breadcrumbs
  [breadcrumbs]="longBreadcrumbs"
  [collapsible]="true"
  [maxVisibleItems]="5"
>
</aava-breadcrumbs>

---

longBreadcrumbs: BreadcrumbItem[] = [
  { icon: 'home', label: 'Home', url: '/home', active: false },
  {
    icon: 'building',
    label: 'Organization',
    url: '/organization',
    active: false,
  },
  { icon: 'folder', label: 'Projects', url: '/projects', active: false },
  {
    icon: 'folder',
    label: 'Web Development',
    url: '/web-dev',
    active: false,
  },
  { icon: 'folder', label: 'Frontend', url: '/frontend', active: false },
  { icon: 'folder', label: 'Components', url: '/components', active: false },
  {
    icon: 'package',
    label: 'Breadcrumbs',
    url: '/breadcrumbs',
    active: true,
  },
];

```

## Custom Separator

Customizable separator icons and sizes.

```

<aava-breadcrumbs
  [breadcrumbs]="sampleBreadcrumbs"
  separatorIcon="chevron-right"
  [separatorSize]="14"
>
</aava-breadcrumbs>

<aava-breadcrumbs
  [breadcrumbs]="sampleBreadcrumbs"
  separatorIcon="arrow-right"
  [separatorSize]="14"
>
</aava-breadcrumbs>

<aava-breadcrumbs
  [breadcrumbs]="sampleBreadcrumbs"
  separatorIcon="slash"
  [separatorSize]="14"
>
</aava-breadcrumbs>

<aava-breadcrumbs
  [breadcrumbs]="sampleBreadcrumbs"
  separatorIcon="chevron-right"
  [separatorSize]="12"
>
</aava-breadcrumbs>

<aava-breadcrumbs
  [breadcrumbs]="sampleBreadcrumbs"
  separatorIcon="chevron-right"
  [separatorSize]="18"
>
</aava-breadcrumbs>

---

sampleBreadcrumbs: BreadcrumbItem[] = [
  { icon: 'home', label: 'Home', url: '/home', active: false },
  { icon: 'folder', label: 'Category', url: '/category', active: false },
  { icon: 'tag', label: 'Subcategory', url: '/subcategory', active: false },
  { icon: 'package', label: 'Product', url: '/product', active: true },
];

```

## Dropdown Breadcrumbs

Interactive breadcrumbs with dropdown menus for enhanced navigation options.

```

<aava-breadcrumbs
  [breadcrumbs]="dropdownBreadcrumbs"
  [dropdownIconSize]="14"
  [flyoutStyle]="{'min-width': '200px'}"
>
</aava-breadcrumbs>

<aava-breadcrumbs
  [breadcrumbs]="consoleBreadcrumbs"
  [dropdownIconSize]="16"
  [flyoutStyle]="{'min-width': '250px'}"
  size="md"
>
</aava-breadcrumbs>

---

interface DropdownItem {
  label: string;
  url: string;
  icon?: string;
}

interface BreadcrumbItem {
  label?: string;
  icon?: string;
  url: string;
  active: boolean;
  dropdownItems?: DropdownItem[];
  dropdownWidth?: number;
}

// Basic dropdown breadcrumb example
dropdownBreadcrumbs: BreadcrumbItem[] = [
  {
    label: 'Dashboard',
    url: '/dashboard',
    active: false,
    icon: 'home',
    dropdownItems: [
      { label: 'Analytics', url: '/dashboard/analytics', icon: 'bar-chart' },
      { label: 'Reports', url: '/dashboard/reports', icon: 'file-text' },
      { label: 'Settings', url: '/dashboard/settings', icon: 'settings' }
    ]
  },
  {
    label: 'Projects',
    url: '/projects',
    active: false,
    icon: 'folder',
    dropdownItems: [
      { label: 'Active Projects', url: '/projects/active', icon: 'play' },
      { label: 'Archived', url: '/projects/archived', icon: 'archive' },
      { label: 'Templates', url: '/projects/templates', icon: 'copy' }
    ]
  },
  {
    label: 'Current Project',
    url: '/projects/current',
    active: true,
  }
]

```

```

        icon: 'folder-open'
    }
];

// Console navigation with dropdown example
consoleBreadcrumbs: BreadcrumbItem[] = [
{
    label: 'Console',
    url: '/console',
    active: false,
    dropdownItems: [
        { label: 'Create Agent', url: '/console/build/agent/create', icon: 'user' },
        { label: 'Create Workflow', url: '/console/build/workflow/create', icon: 'workflow' },
        { label: 'Create Prompt', url: '/console/build/prompt/create', icon: 'message-square' },
        { label: 'Create Tools', url: '/console/build/tools/create', icon: 'tool' },
        { label: 'Create Guardrails', url: '/console/build/guardrails/create', icon: 'shield' },
        { label: 'Create Knowledge base', url: '/console/build/knowledge/create', icon: 'book' }
    ]
},
{
    label: 'Build',
    url: '/console/build',
    active: false,
    dropdownItems: [
        { label: 'Agents', url: '/console/build/agents', icon: 'users' },
        { label: 'Workflows', url: '/console/build/workflows', icon: 'git-branch' },
        { label: 'Models', url: '/console/build/models', icon: 'cpu' }
    ]
},
{
    label: 'Agent',
    url: '/console/build/agent',
    active: true
}
];

```

## Features

### Hierarchical Navigation

- Display navigation paths with clear hierarchy
- Support for unlimited breadcrumb levels
- Automatic active state management

### Icon Support

- Optional icons for each breadcrumb item
- Consistent icon sizing and coloring
- Icon-text alignment and spacing

### Collapsible Behavior

- Smart collapsing for long navigation paths
- Ellipsis expansion on click
- Configurable maximum visible items

- Maintains navigation context

## Size Variants

- Four size options: extra small (xs), small (sm), medium (md), and large (lg)
- Consistent typography and spacing across all sizes
- Responsive sizing behavior with appropriate icon scaling

## Custom Separators

- Configurable separator icons
- Adjustable separator sizes
- Consistent styling with breadcrumb items

## Dropdown Navigation

- Interactive dropdown menus for breadcrumb items
- Support for nested navigation options
- Configurable dropdown styling and positioning
- Icon support within dropdown items
- Click-outside to close functionality

## Accessibility

- ARIA attributes for screen readers
- Keyboard navigation support
- Focus management
- Semantic HTML structure

## Responsive Design

- Mobile-friendly navigation
- Adaptive collapsing behavior
- Touch-optimized interactions

## API Reference

### Inputs

Property	Type	Default	Description
breadcrumbs	BreadcrumbItem[]	[]	Array of breadcrumb items to display
size	'sm'   'md'   'lg'   'xs'	'md'	Size variant for the breadcrumbs
separatorIcon	string	'chevron-right'	Icon name for breadcrumb separators

Property	Type	Default	Description
separatorSize	number	14	Size of separator icons in pixels
dropdownIconSize	number	14	Size of dropdown icons in pixels
flyoutStyle	Record	undefined	Custom styles for dropdown flyout
customStyles	Record	{}	Custom styles for breadcrumb container
collapsible	boolean	true	Enable collapsible behavior for long paths
maxVisibleItems	number	5	Maximum items to show before collapsing

## Interfaces

## Methods

Method	Parameters	Description
onBreadcrumbClick()	event: Event, index: number	Handle breadcrumb item click and navigation
onEllipsisClick()	None	Expand collapsed breadcrumbs on ellipsis click
onBreadcrumbKeydown()	event: KeyboardEvent, index: number	Handle keyboard navigation
getIconColor()	isLast: boolean	Get appropriate icon color based on state
getOriginalIndex()	displayedIndex: number	Map displayed index to original breadcrumb index

## Computed Properties

Property	Type	Description
displayedBreadcrumbs	BreadcrumbItem[]	Current breadcrumbs to display (considering collapse)
shouldCollapse	boolean	Whether breadcrumbs should be collapsed

Property	Type	Description
shouldShowEllipsis	boolean	Whether to show ellipsis for collapsed items

## CSS Custom Properties

### Container Properties

Property	Description
--breadcrumbs-background	Background color of breadcrumb container
--breadcrumbs-font	Font family and properties for breadcrumb container

### Item Properties

Property	Description
--breadcrumbs-item-text	Text color for breadcrumb items
--breadcrumbs-item-border-radius	Border radius for breadcrumb items
--breadcrumbs-item-transition	Transition properties for breadcrumb items
--breadcrumbs-item-hover-text	Text color on hover
--breadcrumbs-item-active-background	Background color for active items
--breadcrumbs-item-disabled-text	Text color for disabled items
--breadcrumbs-item-disabled-cursor	Cursor for disabled items

### Current Item Properties

Property	Description
--breadcrumbs-item-current-text	Text color for current/active item
--breadcrumbs-item-current-font-weight	Font weight for current item

### Size Variants

Property	Description
--breadcrumbs-size-xs-font	Font properties for extra small size
--breadcrumbs-size-sm-font	Font properties for small size
--breadcrumbs-size-md-font	Font properties for medium size
--breadcrumbs-size-lg-font	Font properties for large size

# CSS Classes

## Container Classes

- .breadcrumb - Main breadcrumb container
- .breadcrumb.xs - Extra small size variant
- .breadcrumb.sm - Small size variant
- .breadcrumb.md - Medium size variant (default)
- .breadcrumb.lg - Large size variant

## Item Classes

- .breadcrumb-item - Individual breadcrumb item container
- .breadcrumb-separator - Separator icon styling
- .breadcrumb-ellipsis - Ellipsis container for collapsed items
- .ellipsis - Ellipsis text styling
- .dropdown-container - Container for dropdown breadcrumb items
- .dropdown-button - Button element for dropdown triggers
- .dropdown-menu - Dropdown menu container
- .dropdown-item - Individual dropdown menu items

## State Classes

- .active - Active breadcrumb item
- .inactive - Inactive breadcrumb item
- .disabled - Disabled breadcrumb item

## Best Practices

### Navigation Structure

- Keep breadcrumb paths logical and intuitive
- Use descriptive labels that match page titles
- Ensure URLs are valid and accessible

### Icon Usage

- Use consistent icon naming conventions
- Choose icons that clearly represent navigation levels
- Maintain icon-text alignment and spacing

### Dropdown Navigation

- Use dropdowns for breadcrumb items that have multiple sub-navigation options
- Provide meaningful labels and icons for dropdown items
- Configure appropriate dropdown width using dropdownWidth property
- Use flyoutStyle to customize dropdown appearance and positioning

## **Collapsible Behavior**

- Set appropriate maxVisibleItems based on design context
- Test collapsing behavior with various path lengths
- Ensure ellipsis expansion provides meaningful navigation

## **Accessibility**

- Provide meaningful labels for screen readers
- Test keyboard navigation thoroughly
- Ensure sufficient color contrast for all states

## **Responsive Design**

- Test breadcrumbs on various screen sizes
- Consider mobile navigation patterns
- Optimize touch targets for mobile devices

## **Performance**

- Avoid excessive breadcrumb levels
- Use efficient navigation logic
- Optimize icon rendering and caching

## **Use Cases**

### **E-commerce Sites**

- Product category navigation
- Search result breadcrumbs
- Shopping cart navigation

### **Content Management Systems**

- Document hierarchy navigation
- Folder structure display
- Content editing paths

### **Web Applications**

- User dashboard navigation
- Settings and configuration paths
- Multi-step form navigation

### **Documentation Sites**

- Documentation hierarchy
- Search result navigation
- Related content linking

### **Admin Panels**

- User management navigation
- System configuration paths
- Report and analytics navigation

## **Console Applications**

- Build tool navigation with dropdown options
- Agent and workflow creation paths
- Quick access to related creation tools

## **Accessibility**

### **ARIA Support**

- Proper aria-current attributes for current page
- Semantic navigation structure
- Screen reader friendly labels

### **Keyboard Navigation**

- Tab navigation through breadcrumb items
- Arrow key navigation between items
- Enter/Space activation for navigation

### **Focus Management**

- Clear focus indicators
- Logical tab order
- Focus restoration after navigation

### **Screen Reader Support**

- Descriptive labels for navigation items
- Context information for collapsed items
- Clear indication of current location

## **Responsive Behavior**

### **Mobile Optimization**

- Touch-friendly tap targets
- Optimized spacing for mobile screens
- Collapsible behavior for limited space

### **Tablet Adaptation**

- Balanced layout for medium screens
- Appropriate icon and text sizing
- Maintained navigation context

## **Desktop Enhancement**

- Full navigation path display
- Hover effects and interactions
- Enhanced visual hierarchy

## **Browser Support**

- Modern Browsers : Full support for all features
- CSS Grid/Flexbox : Required for layout
- ES6+ Features : Required for component functionality
- Angular Router : Required for navigation functionality